

REMARKS/ARGUMENTS

Reconsideration of this application is respectfully requested.

In response to the rejection of claim 7 under 35 U.S.C. §112, second paragraph, the dependency of this claim has been corrected so as to ensure antecedent basis for the first and second nodes recited at line 2 therein.

Accordingly, all outstanding formal issues are believed to have been resolved in the Applicant's favor.

The rejection of claim 8 under 35 U.S.C. §102 as allegedly anticipated by Loher WO '899 is respectfully traversed – as is the rejection of the remaining claims 1-7 and 9-16 under 35 U.S.C. §103 as allegedly being made “obvious” based on Loher in view of Kuchibhotla '342.

Loher uses the term "node" for such devices, but in Applicant's specification "node" is used to signify each of two locations associated with the actual device, which between them define the "forwarding direction". To avoid confusion, the term "device" will be used when discussing what Loher calls a "node".

Loher does not disclose at least one essential element of the claims, namely, the identification of a "forwarding direction" required in all three independent claims 1, 8 and 10. The selection of a neighboring device does not meet this requirement for two reasons: firstly, Loher may select such a device by criteria other than its direction from the device making the selection – examples mentioned on page 5 include proximity, bandwidth, cost and expected delay, and in the cited passage (page 8, lines 15-21) traffic, topology, propagation conditions, distance, delay,

cost, bandwidth and available power. In fact, Loher does not mention direction specifically at all, and certainly not as a forwarding criterion.

More significantly, the Examiner identifies the "forwarding direction" as the direction of the device to which data is forwarded. Not only is there no use of this terminology in Loher, but this usage is the reverse of what is required by the claims. The invention requires a forwarding direction to be identified before determining which devices are present in that direction – see the penultimate integers of claims 1 and 10, and the identification (in claim 8) of a device whose position is in the (already determined) forwarding direction. This can be seen, for example, in Figure 2 of the specification, where several of the devices (most notably device 40) have a forwarding direction which is not directly pointing at any neighboring device – the device closest to the forwarding direction (in this case node 20) is selected. Indeed, it can be seen that the forwarding direction is, in general, different to the actual direction of the device to which data is forwarded.

The devices co-operate with each other to define what this forwarding direction should be – the inventor has described it as analogous to the behavior of magnetic dipoles (bar magnets) – provided one allows the sink (90) to be a monopole – perhaps electric dipoles are a better analogy. However, unlike the prior art, the devices of the invention use the local environment (i.e., other devices) to define a direction, and only then look for a device to forward data towards. The prior art compares each device, as a prospective candidate. This approach typically has a higher communications overhead than is required by the present invention (see the discussion at the foot of page 4 of the specification).

It may be helpful to consider how the Applicant's invention might be applied to a network having the topology of Figure 2 of Loher. It is most unlikely that the "forwarding direction" from node N (i-1) would be towards N(i), as that is almost perpendicular to the direction of the sink 6. It is much more likely to be towards the nearest of the three devices labelled "4", although factors such as buffer size will affect the value "q" which determines the influence each device has on its neighbors.

Given such fundamental distinctions as already discussed, it is not believed necessary at this time to discuss additional deficiencies of the cited references with respect to additional features of the rejected claims. For example, the secondary reference to Kuchibhotla does not supply the above-noted deficiencies of Loher. Furthermore, as a matter of law, it is impossible for a reference to anticipate a claim unless it teaches each and every feature of that claim.

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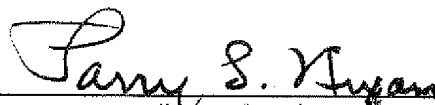
AMENDMENT UNDER 37 C.F.R. §1.111
Art Unit 2616

Accordingly, this entire application is now believed to be in allowance condition, and a formal notice to that effect is respectfully solicited.

Respectfully submitted,

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By:

A handwritten signature in cursive script, appearing to read "Larry S. Nixon", is written over a horizontal line.

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